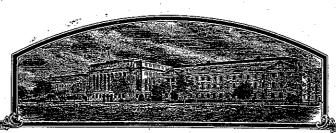
No.



200200061

### THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Jurf Merchants, Inc.

MINERALS. THERE HAS BEEN PRESENTED TO THE

### Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT; SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE PASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS ROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR CONDITIONING IT OPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR IT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84) S AMENDED, 7 U.S.C. 2321 ET SEO.)

### RYEGRASS, PERENNIAL

'Promise'

In Testimon Thereof, I have hereunto set my hand and caused the seal of the Flant Unriety Frotestion Office to be affixed at the City of Washington, D.C. this twenty-second day of November, in the year two thousand and four.

stary of Agriculture

REPRODUCE LOCALLY. Include form number and date on all reproduction	ons.	FORM APPROVED ON	D NO 0501 0055 EXTENDED
U.S. DEPARTMENT OF AGRICULTURE		The following statements are made	B NO. 0581-0055 EXPIRES 12-31-9 in accordance with the Privacy Act of
AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY DIVISION - PLANT VARIETY PROTECTION OF	FICE.	1974 (5 U.S.C. 552a) and the Pape	erwork Reduction Act (PRA) of 1995.
		Application is required in order to	determine if a plant variety protection
APPLICATION FOR PLANT VARIETY PROTECTION CERT		certificate is to be issued (7 U.S.C.	2421). Information is held confidentia
(Instructions and information collection burden statement on 1. NAME OF APPLICANT(S) (as it is to appear on the Certificate)	reverse)	until certificate is issued (7 U.S.C. 2	
		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
Turf Merchants, Inc.			
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)		EDT	Promise
The state of the s		5. TELEPHONE (include area code)	FOR OFFICIAL USE ONLY
33390 Tangent Loop Rd		(541) 926 - 8649	
Tangent, OR	•		PVPO NUMBER
97389		C PAY ( )	200200061
		6. FAX (include area code)	F DATE
		(541) 9 <b>2</b> 6 - 4435	January 14, 2002
7. GENUS AND SPECIES NAME	8. FAMILY NAME	Ratanicall	G
Lolium perenne	o. Tradici NAME	polanicat)	F FILING AND EXAMINATION FEE
*	Poaceae		E 2705
9. CROP KIND NAME (Common name)			S DATE
Perennial Ryegrass			R 1/14/2002
10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATI	ON (		
Corporation Corporation	ON (corporation, partn	tership, association, etc.) (Common Name)	E \$ 432
11. IF INCORPORATED, GIVE STATE OF INCORPORATION		12 DATE OF BIGOTOR I	- <b> </b> ∨  -
Oregon	•	12. DATE OF INCORPORATION 03 - 15 - 95	E DATE D / / / / / / / / / / / / / / / / / / /
3. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERV	E IN THIS APPLICATI	ION AND PECENTE ALL BADEDS	0/8/2004
Steve Tubbs 33390 Tangent Loop Rd. Tangent, OR 97389		and the state of t	14. TELEPHONE (include area code) (541) 926 - 8649 15. FAX (include area code)
			(541) 926 - 4435
6. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instr	ructions on reverse)		····
a. Exhibit A. Origin and Breeding History of the Variety			
b. Exhibit B. Statement of Distinctness			
c. Exhibit C. Objective Description of the Variety			
d, Exhibit D. Additional Description of the Variety (Optional)		,	
e. Exhibit E. Statement of the Basis of the Applicant's Ownership		•	
f Voucher Sample (2500 viable untreated seeds or, for tuber propagated varieties	s verification that tissue	culture will be deposited and maintained in	an approved public repository)
g. Filing and Examination Fee (\$2,450), made payable to "Treasure of the United St.	ates" (Mail to DI/DO)		
DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VA	RIETY NAME ONLY	, AS A CLASS OF CERTIFIED SEED? (See	Section 83(a) of the Plant Variety Protection Act)
YES (If "yes," answer items 18 and 19 below)	No (If "no	o," go to item 20)	
DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS GENERATIONS?	TO NUMBER OF	19. IF "YES" TO ITEM 18, WHICH CLASSES	OF PRODUCTION BEYOND BREEDERS SEED?
⊠ Yes □ No		FOUNDATION REGIS	M
HAS THE VARIETY OR HYBRID PRODUCED FROM THE VARIETY BEEN RELEAS	SED, USED, OFFERED	FOUNDATION REGIS	TERED CERTIFIED
YES (If "yes, " give names of countries and dates)	NO.	•	
The applicant(s) declare that a viable sample of basic seed of the variety will be formished with	L1	replenished upon request in accordance with	such regulations as may be
applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repose.  The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced or tuber propagated section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety	nory and maniamed for	Inc duration of the certificate	
Applicant(s) is (are) informed that false representation herein can jeopardize protection and resident OF APPLICANT (Ouner(s))	sult in penalties.		
ME (Please print or type)		APPLICANT (Owner(s))	N
* ***			
Steve Tubbs	NAME (Please pr	,	•
PACIFYOR TITLE  DATE  1/0/02  D-470 (03-96) (Previous additions are to be destroyed)	CAPACITY OR TO	,	DATE

### Exhibit A:

### Origin and Breeding History Promise (EDT) Perennial Ryegrass

'Promise' (EDT) perennial ryegrass (Lolium perenne L.) is an advanced generation synthetic cultivar selected from the maternal progenies of 30 clones. Thirteen related clones served as additional pollen sources. All parental clones contained a Neotyphodium endophyte. Over 90 percent of the parental germplasm used in the development of the 43 parental clones of 'Promise' traces to plants collected from old turfs of the eastern USA in a germplasm collection and enhancement program initiated by the New Jersey Agricultural Experiment Station in 1962. Many thousands of hectares of turf were examined. The most useful plants were found in New York, new Jersey, Maryland, and Pennsylvania. All selected clones ranged in size from 1 to over 4 meters in diameter indicating that each originated from a single seedling which persisted and grew over a period of many years. The origin of the seed used to establish these turfs is unknown. Additional germplasm was selected from populations used in the development of 'Manhattan II' perennial ryegrass (Funk et al., 1984), and from the cultivars 'Loretta', 'Caravelle', 'Sprinter', 'Magnolia', 'Arika', 'Citation' (Bailey et al., 1978), and 'Birdie'. Plants selected from PI 231,597 (Greece) and PI 197,270 (Finland) provided less than one percent of the parental germplasm.

Plants selected from old turfs and other germplasm sources were evaluated in mowed clonal tests, spaced-plant nurseries, and disease screening tests. Progenies from intercrossing the best performing plants were subjected to many cycles of genotypic and phenotypic recurrent selection combined with population backcrossing to improve turf performance and seed yield.

Eight hundred plants were selected from nine single-plant progeny turf plots established in 1994 and 1995 at the Rutgers University Plant Science Research and Extension Farm at Adelphia, New Jersey. These progenies were chosen on the basis of records of excellent turf performance and freedom from the dollar spot disease incited by a pathogen formerly designated as *Sclerotinia* 

homoeocarpa F. T. Bennet, but presently thought to belong in either the genus Lanzia Socc. or Moellerodiscus Henn. Selected plants were subsequently established in a spaced-plant nursery during the fall of 1997. Forty-three plants were selected from this nursery immediately prior to anthesis during the spring of 1998 and transferred to an isolated crossing block. Selection was based on an attractive dark-green color, lower-growing leafy plants, high shoot density, early maturity, and high seed yield potential. Seed was subsequently harvested from 30 plants with the best floret fertility. Seed of each progeny line was used to establish a turf plot at Adelphia, New Jersey with additional seed of each progeny sent to Advanta Seeds Pacific in Albany, Oregon.

In the fall of 1998 a seed increase block containing plants of thirty progeny lines (1,800 total plants), was established in Albany, Oregon. In 1999 negative mass selection was used and 37% of the plants were rogued from the population. The remaining plants were harvested in bulk and the seed was used to establish a morphological nursery for Plant Variety Protection (PVP) measurements.

### References:

- 1) Funk, C.R., W.A. Meyer, and B.L. Rose. 1984. Registration of 'Manhattan II' perennial ryegrass. Crop Sci. 24:823-824.
- 2) Bailey, R.H., B.L. Rose, C.R. Funk, and W.A. Meyer. 1978. Registration of 'Citation' perennial ryegrass. Crop Sci. 18:914.

### 2. Breeder Seed Maintenance:

A breeder seed block was planted in isolation in 1998. Breeder seed was harvested in bulk (37% rogued), in 1999 and is maintained in cold storage. Seed propagation is limited to three generations, one each of foundation, registered, and certified.

### 3. Stability and Uniformity:

Promise (EDT) is a stable, uniform cultivar. Stability and uniformity has been observed in two generations of seed multiplication (breeder and foundation) and turf plots. Neither off-type or variant plants have been observed in the multiplication process.

### Exhibit B

### Novelty Statement for 'Promise' (EDT) Perennial Ryegrass

The following summary outlines the distinctive characteristics of 'Promise'. The novelty of 'Promise' is based on the unique combination of these characteristics. 'Promise' is most similar to Manhattan, but may be differentiated by using the following criteria:

- 1) The heading date of Promise is at least 2 days earlier than Manhattan (tables 1A, 1B).
- 2) The anthesis date of Promise is at least 2 days earlier than Manhattan (tables 1A, 1B).
- 3) The mature plant height of Promise is at least 4.5 cm shorter than Manhattan (tables 1A, 1B).
- 4) Promise has a spike length (upper most node of inflorescence to apex) shorter than Manhattan (tables 1A, 1B).
- The length of the flag leaf of Promise is at least 3.5 cm shorter than Manhattan (tables 1A, 1B).
- 6) The genetic color of Promise is darker green compared to Manhattan (tables 1A, 1B).
- 7) Promise has a sheath length of the flag leaf at least 1 cm shorter than Manhattan (tables 1A, 1B).
- 8) The length of the leaf blade (first leaf subtending the flag leaf) of Promise is at least 3 cm shorter than Manhattan (tables 1A, 1B).
- 9) Promise has at least 2 fewer spikelets per spike than Manhattan (tables 2A, 2B).

REPRODUCE LOCALLY. Include form number and date on all reproductions.

Form Approved - OMB No. 0581-0055

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection of information is (0581-0055). The time required to complete this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all of its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited basis apply to all programs.) Persons with disabilities who require alternative means of communication of program information (Braille, large print, audiotape, etc.) Should contact the USDA's TARGET Center at 220-720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building 14<sup>th</sup> and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

> U.S. DEPARTMENT OF AGRICULTURE AGRICULTURE MARKETING SERVICE SCIENCE AND TECHNOLOGY PROGRAM PLANT VARIETY PROTECTION OFFICE **BELTSVILLE, MD 20705**

EXHIBIT C (RYEGRASS)

### **OBJECTIVE DESCRIPTION OF VARIETY** RYEGRASS

		(Loli	ium spp.)	
NAM	E OF APPLICANT(S) Turf Merchants, Inc. c/o Steve Tubbs		TEMPORARY DESIGNATION EDT	VARIETY NAME Promise
ADDI	RESS (Street and No., or R. 33390 Tangent Loop Tangent, Oregon 97389	F.D. No., City, State, and Zip Code		FOR OFFICIAL USE ONLY PVPO NUMBER  200200061
(e.g. 0 be for	989). Descriptions of charac SPACED PLANTS. Give ad	ters should represent those that are	cs of this variety in the boxes below. It typical for the variety. Ranges may be tics that cannot be adequately described icates decimal.	given also. Measured data should
1.	includes Weste	num (annual or italian: 2 = L. jerwoldicum) species):		gidum (includes Wimmeria)
2.	<b>PLOIDY:</b> 1 1= Diploid	2 = Tetraploid 3 = Other (Plea	se specify):	
3.	DURATION:  3 1 = Annual or E	Biennial 2 = Short lived perennial	1 (3-4 years) 3 = Perennial (mo	ore than 4 years)
		STANDAR	D CULTIVARS	
	1 = GULF 5 = NORLEA	2 = WIMMERIA 6 = ABERYSTWYTH S-23	3 = LINN	
4.	MATURITY (50% HE  _3		e for comparison:  EARLIER THAN 7  LATER THAN	STANDARD CULTIVAR STANDARD CULTIVAR
5.	MATURE PLANT HE	IGHT (Use standard cultivars from 9. 5 0cm Shorter than cm Taller than		ARD CULTIVAR ARD CULTIVAR
5.	5 = Medium  MATURE PLANT HE	7 = Late DAYS  IGHT (Use standard cultivars from 9.   5   0cm Shorter than	m above):	STANDARD CULT

6.	PERCI compa	ENT WINTER DAMAGE (estimated as rison):  Percent Damage of Application Cultivar	percent o	f the area appearing dead. Use	stand	A ODA ard cultivars for	
		Percent Damage of		STANDARD CULTIVAR			
7.	TURF	<b>DENSITY (Use standard cultivars from</b> Tillers per 100 square cm	above):				
		Less tillers per 100 square cm than		STANDARD CULTIVAR			
		More tillers per 100 square cm than		STANDARD CULTIVAR			
8.	FLAG 16.70	LEAF (at full growth, use standard culti cm Length (from ligule to tip)		above): mm Width (at widest point)			
	4.40	cm Shorter than	_7	STANDARD CULTIVAR	_7_	_	1 = Deflexed
		cm Longer than		STANDARD CULTIVAR		Boot Stage	3 = Recurved 5 = Horizontal
	0.00	mm Narrower than	_7	STANDARD CULTIVAR			7 = Semi-Erec 9 = Erect
		mm Wider than		STANDARD CULTIVAR			
		Vernation 1 = Leaves rolled in you 3 = Leaves folded in you % Plants with anthocyanin in lower leaf s	ung shoots			led with rolled ed  1 = Yellow Gre  2 = Medium Gr  3 = Blue Green	en
10.	<b>SPIKE:</b> 42.80	mm Spike length (tip to internode below l	lowest flor	et)			
	6.93	mm Shorter than		STANDARD CULTIVAR			
		mm Longer than		STANDARD CULTIVAR			
	92.00	mg per ten spikes (trimmed to internode b	elow lowe	st floret)			
	3.0	mg lighter per ten spikes than	_7	STANDARD CULTIVAR			
	$\bot\bot$	mg heavier per ten spikes than		STANDARD CULTIVAR			
	9.30	florets per spikelet					
	PERCEN	NTAGE OF PLANTS WITH:					
	Rachis:		0.0	% Rough		4	
	Spike Co	olor: 93 % Green	<u>7.0</u>	% Purple			
	Lemma:						
		mm Awn length 9.07	mm Glu	me length			

10.	SPIKE (Continued)			
		rly equal to outer glumes ch longer than outer glumes	:	
11.	COLEOPTILE:			
	_55.60 % Plants with anthocya	nin in coleoptile		
12.	ANTHER COLOR:			and the shall the same of the
	% Plants with white ant	hers <u>100</u>	% Plants with yellow and	hers
	% Plants with purple an	thers		
13.	ROOT AND PLANT CHARAC	CTERISTICS:		
	/ % Plants with prostrate	growth habit		
	0.0 % Plants with flourescen	nt roots		
		rowth habit		1
14.	SEED:			
	<u>1737</u> mg per 1000 seeds	_59.00 mm Total lengt	h of 10 seeds13.00	mm Total Width of 10 seeds
15.	<b>DISEASE</b> (0 = Not Tested, 2 =	Highly susceptible, 4 = Mc	oderately Susceptible, 5 = N	foderately Resistant, 8 = Highly Resistant)
	0 Crown Rust (Puccinia c	oronata) <u>0</u>	Dollar Spot (Sclerotinia)	
	0 Brown Patch (Rhizocton	nia) <u>0</u>	Leaf Spot (Helminthospo	rium)
	0 Mildew	0	Snow Mold (Typhula)	
	0 Red Thread (Corticum)		Other (Please Specify):	
 16.	INSECT: (0 = Not Tested, 2 = H	ighly susceptible, 4 = Mode		derately Resistant, 8 = Highly Resistant)
	·			, <b>, , ,</b>
17.				r variety with which comparison is made
	(1 = less than, 2 = same as, 3 = n	iore erect, more resistant,	, denser, more persistent,	darker or greater height):
	Resemblance Character		Similar Variety	
	_2 Plant Habit (ere	ectness)		1 = GULF
	Tillering		<del></del>	2 = WIMMERIA 62
	Winter Hardine	ss		3 = LINN
		ure Stress Resistance	<del></del>	4 = PELO
	3 Turf Persistence3 Plant Color	•		5 = NORLEA
			_7	6 = ABERYSTWYTH S-23
	_1 Vertical Seedlin	ig Growth Rate	_7	7 = MANHATTAN
	Crown Density		_7	8 = PENNFINE
	3 Mower Shreddin	ng Resistance	<u>_7</u>	

	200	2000	24	6/		
here	perennial	ryegrass	is	used	for	tu

18.	GIVE AREA OF ADAPTATION AND INTENDED US	E: Promise is adapted to regions where perennial ryegrass is used for turf.
	i di <u>anno de di mana </u>	
19.	GIVE AREA TEST RESULTS PRESENTED FROM:	Albany, Oregon

### 20. COMMENTS:

A morphological nursery designated 99PVPLP1 was established in September of 1999, in Albany, Oregon. Experimental design consisted of 19 entries; 3 replications per entry; 20 plants per replication; for a total of 60 plants per entry. Charger, and Manhattan were used as standards. Plants were established on 2.5 foot centers with a skip row between replications and between entries.

The nursery received 30 pounds of nitrogen per acre rate following establishment and 50 pounds of nitrogen per acre per year in 2000 and 2001. The fertilizer source was 15-15-15 and was applied as a split application with ½ applied in the spring and ½ in the fall. The nursery was sprayed twice each spring, 3 weeks between applications, with Tilt (2 oz/acre rate), to prevent stem rust. One pound of Karmex per acre rate was applied during late summer to prevent emergence of volunteer seedlings.

Data was analyzed using analysis of variance for a randomized complete block design. Means were calculated for each replication and then analyzed.

### Exhibit D:

### **Additional Description**

### Promise (EDT) Perennial Ryegrass

Promise is an improved turf-type perennial ryegrass. It exhibits a dwarf growth habit and a blue green genetic color compared to Manhattan (tables 1A, 1B). Promise is of early maturity with a heading date earlier than Manhattan, but later than Charger (tables 1A, 1B). The morphological characteristics; mature plant height, spike length, and flag leaf length are all longer for both Manhattan and Charger compared to Promise (tables 1A, 1B). The spike characteristics; spikelet length, glume length, lemma length for Charger are longer compared to Promise (tables 2A, 2B). Promise has a lower milligram weight of ten spikelets compared to Charger (tables 2A, 2B). Promise exhibits a shorter spike length from the lower most whorl to the tip of the spike than Manhattan and Charger (tables 2A, 2B). Promise exhibits a higher percent of anthocyanin in the seedling coleoptile compared to Manhattan (tables 3A, 3B). Promise does not produce purple colored anthers compared to Manhattan and Charger (tables 3A, 3B).

Table 1A

### 2000 Morphological Data

Cultivar	Heading Date (days after April 1)	Anthesis Date (days after April 1)	Genetic Color	Mature Plant Height (cm)	Plant Width (cm)	Panicle Length (cm)	Flag Leaf Length (cm)	Flag Leaf Width (cm)	Flag Leaf Height (cm)	Flag Leaf Sheath Length (cm)	Flag Leaf Internode Length (cm)	Leaf Blade Length (cm)	Leaf Blade Width (cm)	Leaf Blade Height (cm)	Leaf Sheath Length (cm)
EDT	37.33	62.67	6.00	74.40	20.57	42.80	28.73	5.00	43.67	12.03	13.93	26.73	5.00	26.00	8.70
Charger	32.67	59.00	4,00	80.63	19.30	49.90	32.53	6.00	43.03	13.03	13.07	28.60	5,00	25.77	9.00
Manhattan	40.67	00.99	3.67	83.90	22.27	49.73	34.83	5.67	47.80	13.73	14.13	31.57	5,33	29.23	9.93
LSD (5%)	1.91	1.91	.074	4.85	1.65	2.62	1.88	0.65	3.25	0.58	1.37	2.01	0.53	2.63	0.55
C,V.	3.42	2.12	10.86	4.68	5.87	4.18	4.30	8.53	5.59	3.31	7.84	5.01	7.49	7.44	4.47
Measurements taken in Albany Orenen 2 rong 20 plants less - 60 3	m in Albony,	Onegon: 3 rong	20 mlnnta/ro	n - 60 date a	oto mointe										

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.

Cultivar under evaluation.

Significant difference over two years one location.

Significant difference over one year one location.

Table 1B

## 2001 Morphological Data

Cultivar	Heading Date (days after April 1)	Anthesis Date (days after April 1)	Genetic Color	Mature Plant Height (cm)	Plant Width (cm)	Panicle Length (cm)	Flag Leaf Length (cm)	Flag Leaf Width (cm)	Flag Leaf Height (cm)	Flag Leaf Sheath Length (cm)	Flag Leaf Internode Length (cm)	Leaf Blade Length (cm)	Leaf Blade Width (cm)	Leaf Blade Height (cm)	Leaf Sheath Length (cm)
EDT	42.67	62.67	5.00	63.50	22.50	31.53	23.73	4.00	42.03	10.87	10.10	24.57	4.33	29.00	8.37
Charger	36.33	59.00	5,00	69.43	24.73	39.43	26.40	4.00	40.33	11.33	11.03	27.73	3.67	25.70	8.17
Manhattan	45.00	64.67	4.33	68.13	26.77	36.90	27.40	4.00	42.97	12.03	19.6	27.60	4.33	28.93	8.63
LSD (5%)	1.61	1.38	0:30	3.91	4.20	2.23	1.37	0.43	2.66	0.59	1.11	1.53	0.50	2.22	0.52
C.V.	2.64	1.57	4.42	4.45	11.86	4.64	4.01	8.02	4.89	3.87	8.40	4.33	8.95	6.10	4.75
3.6	A 18	6	- 00 - 1 - v	CO 3-4.											

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.

Cultivar under evaluation.
Significant difference over two years one location.
Significant difference over one year one location.

Table 2A

# 2000 Laboratory Morphological Data

Length of Panicle From Lower Most Spikelet to Tip (cm)	19.50	24.17	24.80	1.28	4.25
Weight of 10 Spikelets (mg)	92.00	126.00	95.00	14.25	11.43
Spikelets per Paniole	22.33	23.67	26.33	1.90	5.61
Spikelet Length (mm)	15.57	17.80	17.30	1.15	5.08
Florets per Spikelet	9.33	10.00	10.00	76.0	7.55
Glume Length (mm)	9.07	9.97	9.27	0.57	4.58
Lemma Width (mm)	1.30	1.27	1.30	0.07	3.90
Lemma Length (mm)	5.90	6.43	6.20	0.21	2.39
Cultivar	EDT	Charger	Manhattan	LSD (5%)	C.V.

Measurements taken in Albany, Oregon; 3 reps. 20 plants/rep = 60 data points.

Cultivar under evaluation.

Significant difference over two years one location.

### Table 2B

## 2001 Laboratory Morphological Data

Cultivar	Lemma Length (mm)	Lemma Width (mm)	Glume Length (mm)	Florets per Spikelet	Spikelet Length (mm)	Spikelets per Panicle	Weight of 10 Spikelets (mg)	Length of Panicle From Lower Most Spikelet to Tip (cm)
EDT	5.63	1.23	7.60	6.33	11.47	23.33	53.00	16.87
Charger	6.13	1.30	8.20	19.7	13.93	22.67	19:11	20.00
Manhattan	5.77	1.30	7.23	00.9	11,67	25.33	49.00	19.40
LSD (5%)	0.23	0.10	0.46	06:0	£9'0	1.36	7.62	1.03
C.V.	2.88	5.78	4.53	27,01	26'8	4.08	11.02	4.23
Mariniman make taken in Albani. Omening a new O alaste - 60 date a nine	Lon in Albo	Oronous Communication	3 4040.00	- material	10.404			

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.

Cultivar under evaluation.

Significant difference over two years one location.

Significant difference over one year one location.

Table 3A

2000 Additional Morphological Measurements of the Panicle

			ſ										
Panicle Lemma Leaf Blade Seedling Branch Awn Anthocyanin Anthocyanin Pubescence % Present % Present % Purple	Lemma Leaf Blade Awn Anthocyanin % Present % Present	Leaf Blade Anthocyanin % Present	Seedling Anthocyani % Purple	<u>.</u> g	Rachis of Panicle % Smooth	Seed Weight (mg per 1000 seeds)	Anther Color % Puple	Panicle Color % Purple	Panicle Re-Growth in Fall % Re- Grown	Flag Leaf Boot Stage % Re- curve	Flag Leaf Boot Stage % Horizontal	Flag Leaf Boot Stage % Semi- Erect	Flag Leaf Boot Stage %
0 0 0 56	0 0 56	0 56	56		100	1737	0	7	47	0	25	58	17
			Į										
0 0 2/	0 0 27	0 27	2./		100	1541	3	7	55	0	30	53	17
0 0 0 26	0 0 26	0 26	26		100	2102	2	12	63	0	- X	\$2	Ş
				1							,	1	3

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.

Cultivar under evaluation.

Table 3B

2001 Additional Morphological Measurements of the Panicle

Cultivar	Panicle Branch Pubescence % Present	Lemma Awn % Present	Leaf Blade Anthocyanin % Present	Seedling Anthocyanin % Purple	Rachis of Panicle % Smooth	Seed Weight (mg per 1000 seeds)	Anther Color % Purple	Panicle Color % Purple	Panicle Re-Growth in Fall % Re- Grown	Flag Leaf Boot Stage % Re- curve	Flag Leaf Boot Stage % Horizontal	Flag Leaf Boot Stage % Semi- Erect	Flag Leaf Boot Stage % Erect
EDT	0	0	0	79	100	1847	0	3	3	0	7	89	25
Charger	0	0	0	35	100	1647	3	8	8	2	7	75	16
Manhattan	0	0	0	25	100	2136	3	3	2	0	8	75	17
Accessor and accessor	James in A Th. sames A		Commence to the contract of th										

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.

Cultivar under evaluation.

1	REPRODUCE LOCALLY. Include form number and date on all reproductions.	FORM APPROVED OME	NO O	591 0054	. Esante	FG 18 01
	U.S. DEPARTMENT OF AGRICULTURE	FORM APPROVED - OMB NO. 0581-0055 EXPIRES 12-31- The following statements are made in accordance with the Privacy Act o				
	AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY DIVISION - PLANT VARIETY PROTECTION OFFICE	1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.				
	EXHIBIT E	Application is required in order to	datarm	ina in a n	7 mant 21 mari -	<b>4</b>
	STATEMENT OF THE BASIS OF OWNERSHIP	Application is required in order to determine is a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).				
_		,				
1	. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION	3. V	ARIETY	NAME	
	Turf Merchants, Inc	OR EXPERIMENTAL NUMBER				
		EDT	. ]	Promise		
4.	ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)	5. TELEPHONE (include area code)	6 6	AV finale		- 1.1
	33390 Tangent Loop Rd.					
	Tangent, OR 97389	(541) 926 - 8649	<u> </u>	541) 926		
8	Does the annicant own all sights to the writing 16.16.16.	7. PVPO NUMBER 2006	202	1061	, ·	
٠,	es the applicant own all rights to the variety? Mark an "X" in appropriate block. If no, please explain.			YES		NO
						110
						·
9.	Is the applicant (individual or company) a U.S. national or U.S. based company?					
	If no, give name of country	,	$\mathbf{x}$	YES		NO
10.	Is the applicant the original breeder? If no, please answer the following:					
	a. If original rights to variety were owned by individual (s):     Is (are) the original breeder(s) a U.S. national(s)? If no give name of country		<b>I</b>	YES		NO
	h If original rights to year strong and 12		$\Box$ X	YES		NO
	b. If original rights to variety were owned by a company:  Is the original breeder(s) U.S. based company? If no give name of country			<del>v</del>		
11.	Additional explanation on ownership (If needed, use reverse for extra space):		-v.	<del></del> .		
	EASE NOTE:			<del></del>	<del></del>	<u></u>
Pla	nt variety protection can be afforded only to owners (not licensees) when	no meet one of the following crit	eria:			
1.	If the rights to the variety are owned by the original breeder, that person must be of a country which affords similar protection to nationals of the U.S. for the same	TTC	nembe	r countr	y, or nat	ional
2'.	If the rights to the variety are owned by the company which employed the original nationals of a UPOV member country, or owned by nationals of a country which a genus and species.	handler(a) 41.	s. base of the	d, owne U.S. for	d by the sam	e
).	If the applicant is an owner who is not the original breeder, both the original bree	ler and the applicant must meet one o	of the a	ihove cr	iteria	
	original breeder may be the individual or company who directed final breeding. So	ee Section 41(a)(2) of the Plant Varie	ty Prot	tection /	Act for	
ugge	c reporting burden for this collection of information is estimated to average 10 minutes per response, includ aining the data needed, and completing and reviewing the collection of information. Send comments regar stions for reducing this burden, to Department of Agriculture, clearance Officer, OIRM, AG Box 7630, Jam. 20055 and form number in your letter.	ing the time for reviewing instructions, searching ting this burden estimate or any other aspect of t e L. Whitten Building, Washington D.C. 20250.	existing his colle When r	g data sour ection of in eplying, re	rces, gathe formation, efer to OM	ring and including 3 No.
	r the PRA of 1995, no persons are required to respond to a collection of information unless it displays a vali					•
		u Uwiis control number.				

The U.S. Department Of Agriculture (USDA) prohibits discrimination in its programs on the basis, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status (Not all prohibited basis apply to all programs). Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact the

To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington D.C., 20250, or call (202) 720-7327 (Voice) or (202) 720-1127 (TDD). USDA is an equal STD-470-E (03-96)